

Notice of Allowability

Application No.

10/726,669

Examiner

Janis L. Dote

Applicant(s)

KOTSUGAI ET AL.

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/24/05.
2. ☒ The allowed claim(s) is/are 1-29.
3. ☒ The drawings filed on 04 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 12/20/04; 1/25/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

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1. The examiner acknowledges the amendments filed on Feb. 24, 2005, to claims 3-5, 7, 23, 24, 27, and 28. Claims 1-29 are pending.

2. The examiner has considered the US applications listed on "List of related cases" in the Information Disclosure statements filed on Dec. 20, 2004, and Jan. 25, 2005.

EXAMINER'S AMENDMENT

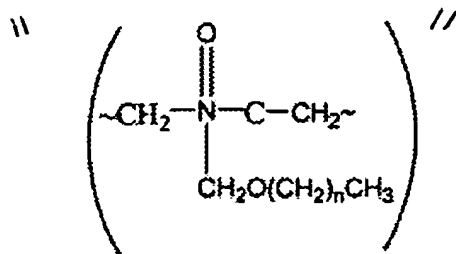
3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Kirsten Greueneberg (Reg. No. 47,297) on Mar. 15, 2005.

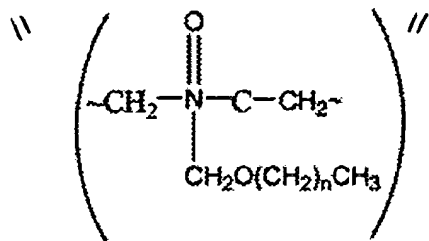
The specification has been amended as follows:

In the amended paragraph filed on Feb. 24, 2005, beginning at page 8, line 3, at line 3, delete

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In the amended paragraph filed on Feb. 24, 2005, beginning at page 15, line 7, at line 3, delete



At page 75, line 4, delete "FIGURE 1" and insert -- FIGURE --.

Claims 20 and 24 have been amended as follows:

In claim 20, line 2, delete "10-4 to 108" and insert -- 10^{-4} to 10^8 --.

In claim 24, in the claim status identifier, delete the term "Original" and insert the phrase -- Currently amended --.

4. The examiner's amendment to the amended paragraphs filed on Feb. 24, 2005, at pages 8 and 15, overcomes the objection to the

specification set forth in the office action mailed on Dec. 2, 2004, paragraph 2, item (2).

The examiner's amendment to the specification at page 75, line 4, avoids an objection to the specification. The specification labels the sole figure in the specification as "FIGURE," not FIGURE 1.

The examiner's amendment to claim 20 merely corrects a typographic error that occurred during the presentation of claim 20 in the current listing of claims filed on Feb. 24, 2005. Antecedent basis for the amendment is found in originally filed claim 20.

The examiner's amendment to claim 24 merely provides the correct claim status identifier as set forth under 37 CFR 1.121.

REASONS FOR ALLOWANCE

5. The following is an examiner's statement of reasons for allowance:

The objections to the specification set forth in the office action mailed on Dec. 2, 2004, paragraph 2, have been withdrawn in response to the amended paragraphs filed on Feb. 24, 2005, at pages 7, 8, and 15, of the specification, and in response to the

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examiner's amendment to the amended paragraphs filed on Feb. 24, 2005, at pages 8 and 15, set forth in paragraph 3, supra.

The rejections of claims 3-9, 23, 24, 27, and 28 under 35 U.S.C. 112, second paragraph, set forth in the office action mailed on Dec. 2, 2004, paragraph 4, have been withdrawn in response to the amendments filed on Feb. 24, 2005, to claims 3-5, 7, 23, 27, and 28.

Claims 1-29 are allowable over the prior art of record for basically the same reasons discussed in the office action mailed on Dec. 2, 2004, paragraph 5, which are substantially reproduced infra, but for the cites to the USPTO English-language translation of Japanese Patent 04-188160 A (JP'160), which is listed on the attached form PTO-892.

US 6,472,118 B1 (Yamaguchi) teaches a carrier comprising a magnetic particle coated with a silicone resin. See carrier preparation example 1 at cols. 9-10. The Yamaguchi carrier has a weight average particle diameter D_w of 36.3 μm , a number average particle diameter D_p of 29.3 μm , and a ratio of D_w/D_p of 1.24. The carrier comprises 81.7 wt% of particles having a diameter of 44 μm or less, and 2.6 wt% of particles having a particle size of less than 22 μm . See Table 1-1 at col. 12, example 1. The carrier meets the particle size and particle

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size distribution limitations recited in instant claim 25.

Yamaguchi further teaches that the magnetic particle equally can be coated with a polyamide resin or a mixture of a polyamide resin and a silicone resin. Col. 5, lines 10, 25-26, and 30-31. However, Yamaguchi does not teach or suggest that the carrier coating comprises "a condensation product of a composition comprising an alkoxyalkylated polyamide and a silicone resin that is reactive with the alkoxyalkylated polyamide," as recited in the instant claims.

US 6,500,594 B2 (Hamano) teaches a carrier comprising a magnetic particle coated with a nitrogen-containing resin and a resin comprising no nitrogen. Col. 14, lines 35-38; and col. 14, lines 46-50. Hamano discloses that the nitrogen-containing resin can be a polyamide, for example nylon-5, nylon-6,6, nylon-6,10, nylon-11, and nylon-12. Col. 15, lines 37-40. In addition, according to Hamano, "polyamide resins having hydrogen atoms of a part or all amide bonds having been subjected to alkoxyalkylation are commercially available for enabling solubility in an alcohol, but these are not preferred since the heat resistance, the film strength and the charging characteristics are poor." Col. 15, lines 40-45. Hamano does not disclose or suggest that the nitrogen-containing resin can be "a condensation product of a composition comprising

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an alkoxyalkylated polyamide and a silicone resin that is reactive with the alkoxyalkylated polyamide," as recited in the instant claims.

Japanese Patent 04-188160 A (JP'160) discloses a carrier comprising a magnetic particle coated with a crosslinked alkoxyalkylated polyamide resin. The crosslinked alkoxyalkylated polyamide resin coating is obtained by coating the magnetic particle with a solution comprising an alkoxyalkylated polyamide, such as methoxymethylated nylon 6, and a crosslinking catalyst, such as succinic acid. See the USPTO translation, page 7, lines 17-24; the table at page 12; and operational example 1 at pages 16-17. JP'160 does not disclose or suggest that its coating composition can further comprise a "silicone resin that is reactive" to the alkoxyalkylated polyamide, such that the coating composition forms a condensation product, as recited in the instant claims. Accordingly, JP'160 does not teach or suggest a carrier as recited in the instant claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff, can be reached on (571) 272-1385. The central fax phone number is (703) 872-9306.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JLD

Mar. 15, 2005

Janis L. Dote
JANIS L. DOTE
PRIMARY EXAMINER
GROUP 1500
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